United States
Environmental Protection
Agency

EPA Proposes Cleanup Plan for Ground-Water Contamination

Evergreen Manor Site
Roscoe, Illinois — July 2003

Main findings

Most of the ground-water contamination has decreased to within safe drinking-water standards.

In 1999-2000, EPA connected homes with contaminated wells and surrounding residences to the North Park water supply.

Ground-water vapors were found in some homes, but not at levels that are hazardous.

EPA would like to continue ground-water and vapor monitoring.

Public comment period

EPA will accept written comments on its proposed cleanup plan during a 30-day public comment period from July 28 to August 26, 2003. This fact sheet includes a pre-addressed comment form.

Availability session

EPA representatives will be available to discuss its proposed cleanup plan one-on-one with area residents, and accept written comments, at an availability session.

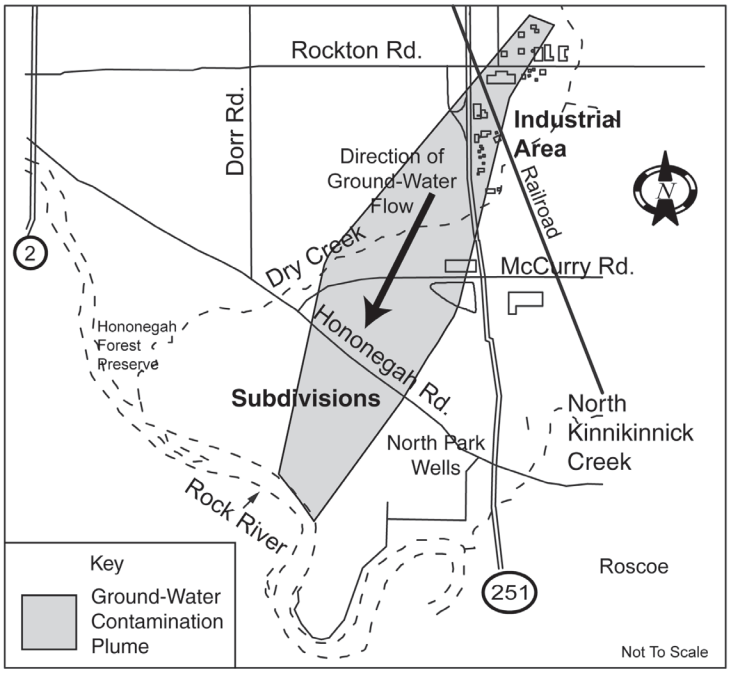
Date: August 19, 2003
Time: 2 p.m. - 4 p.m.
Place: Roscoe Branch Library
5562 Clayton Circle
Roscoe, Ill.

Public meeting

EPA will hold a public meeting to explain and answer questions about the ground-water contamination and EPA's proposed cleanup plan. We will also accept oral and written comments at the meeting.

Date: August 19, 2003
Time: 7 p.m.
Place: Roscoe Township Offices
5792 Elevator Rd.
Roscoe, Ill.

For special needs or accommodations, please contact Janet Pope toll free at: (800) 621-8431, Ext. 30628.



This map shows the area of ground-water contamination.

U.S. Environmental Protection Agency is proposing using natural processes called natural attenuation to clean up the remaining ground-water contamination at the Evergreen Manor Superfund site.[1] The ground-water contamination extends from Route 251 and Rockton Road in Roscoe, Ill. about two miles southwest to the Rock River.

Ground-water contamination decreasing

EPA's investigations show that, due to natural processes, most of the Evergreen Manor ground-water contamination has decreased to within safe drinking-water standards. At Evergreen Manor, these natural processes transport the ground-water contaminants to the Rock River where they mix with the river water and are so diluted they become harmless to humans and the environment.

TCE, PCE, chloroform still present

In 2000 and 2002, however, trichloroethene (also called TCE) and tetrachloroethene (also called PCE) were still detected in ground water slightly worse than drinking-water standards at two locations. TCE and PCE are solvents used as degreasers that could pose a health risk to people who drink water or breathe vapor containing these chemicals. Chloroform was also found in the ground water slightly worse than drinking-water standards. However, because chloroform was only found in the ground water at one

[1]*Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act requires publication of a notice describing the proposed cleanup plan. Information supporting the decision, such as the remedial investigation/feasibility study, must also be made available to the public for comment. This fact sheet is a summary of information contained in the RI/FS for the Evergreen Manor site. Please consult that document, which can be found at the Roscoe Branch Library, for more detailed information.*

location in the residential area and was not found in any other ground-water samples, EPA does not believe that this cholorform is site-related.

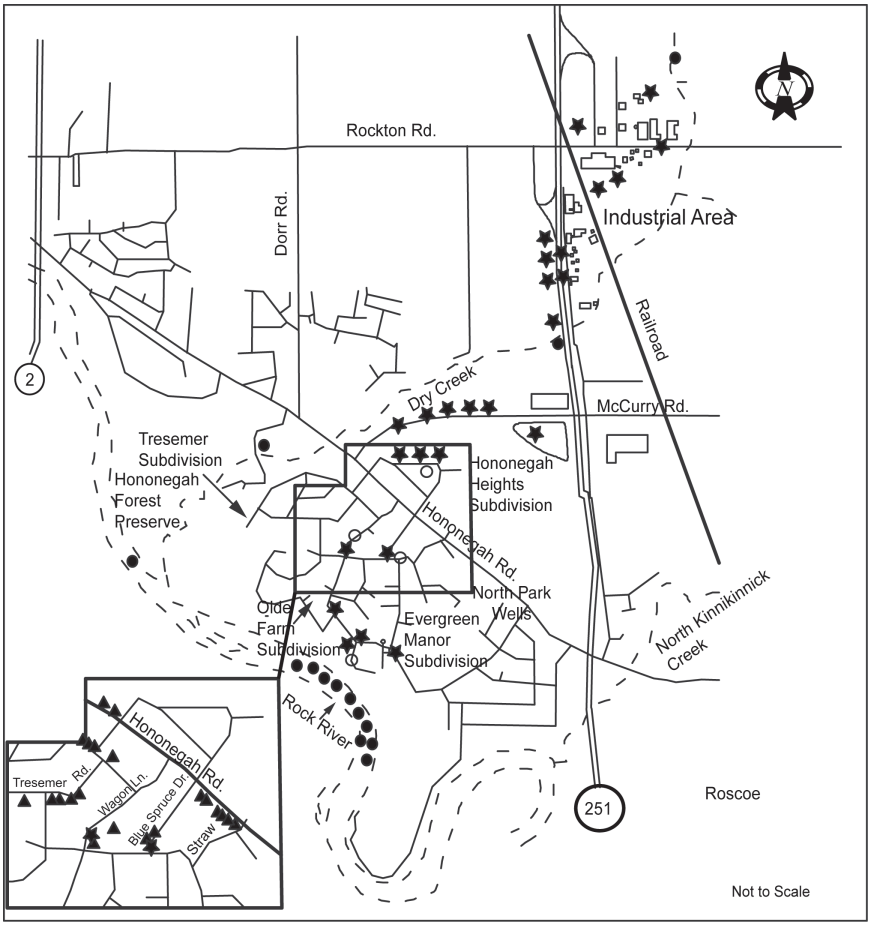
Low levels of vapors found in homes

EPA tested soil vapors and indoor air at four homes located in the area of ground-water contamination. (See "Sampling Locations Map" below.) The testing was done to see if contamination in the ground water is moving into the soil and air of the homes above.

EPA found that some chemicals from the site may be getting into area homes, but not at levels that are hazardous. Hazardous levels of chemicals were found at two homes, but the higher levels of chemicals found inside the homes compared with the levels in the soil vapor around the homes indicates that most of these chemicals are from household activities — not the site.

However, EPA believes that vapor monitoring should continue as part of the final cleanup plan. In addition, EPA believes that vapor monitoring should be expanded to include more homes in the area. (See "EPA's proposed cleanup plan" on page 3.)

Sampling Locations Map



Key

- Ground-Water Sample
- Residential Well Sample - 2000
- Water and Sediment Sample
- Air and Soil Gas Sample

North Park wells not affected by the site

The North Park Water District obtains most of its water from four wells located three to four miles south of Evergreen Manor, which are not in danger of becoming contaminated by the site. While contaminants have been found in two standby wells located about one-quarter mile east of Evergreen Manor, the contamination is coming from a coating on the well pipes and is not related to the site. These standby wells are not in use and the contamination is being taken care of through EPA's Safe Drinking Water Program.

Rock River, Dry Creek not affected

None of the Evergreen Manor ground-water contaminants were found in any of the river water or sediment samples EPA collected from Dry Creek or the Rock River.

Risks to people and the environment

Although residents are connected to the North Park water supply and are not drinking contaminated ground water anymore, TCE and PCE are still present at levels worse than drinking-water standards in some areas. Also, TCE, PCE and other chemicals that may be site-related have been found in soil vapors and in the indoor air of the four homes sampled in the fall 2002, which are located above the ground-water contamination plume.

The risks from using the ground water for drinking and showering, and from potentially breathing site-related chemicals found in the indoor air of the four homes fall within EPA's acceptable risk range.*

However, because the surrounding area gets its water supply from ground water and some of the ground water is still contaminated at levels worse than drinking-water standards, and because higher levels of vapors may be in other homes or found at higher levels at other times of the year (e.g., during the winter when homes are more tightly sealed and furnaces are running), EPA believes that it is necessary to take action to protect public health.

EPA's acceptable risk range

EPA has set guidelines to measure the seriousness of a site's health risk. Here's one general rule of thumb: The risk is unacceptable when contamination could cause more than one case of cancer than would normally be expected for every 10,000 people exposed. In this case, EPA would require action to remove the added risk. There are also guidelines to assess other health-related risks.

EPA's proposed cleanup plan

EPA is proposing Option 3 - monitored natural attenuation to clean up the site. (See page 4 for the other options considered.)

Estimated Cost:	$8.5 million*
Estimated Time to Construct:	0
Estimated Cleanup Time:	15 years

The monitored natural attenuation option relies on existing natural processes to continue to reduce the levels of the chemicals in the ground water to safe drinking-water levels. At Evergreen Manor, the ground-water contaminants are carried along with the ground-water flow into the Rock River where they mix with the river water and become so diluted they are harmless. Eventually, the chemicals break down into non-toxic chemicals. Mixing with the river water also keeps the ground-water contaminants from spreading into nearby areas. In addition, as the levels of contaminants in the ground water decrease, the levels of site-related contaminants in the soil vapors and in area homes are also expected to decrease.

This alternative also includes:

Gound-water monitoring to track and evaluate the effectiveness of the ground-water cleanup over time and to ensure that ground-water contaminants do not threaten area wells during the cleanup.

Vapor monitoring at about 25 homes throughout the area four times a year (winter, spring, summer and fall) over a one- to two-year period. After the first year, the results of the sampling would be reviewed and the monitoring program may be modified to add or remove homes from the program. This vapor monitoring would continue until it is clear that site-related soil vapors are not a threat. Venting systems would be installed at homes with hazardous levels of site-related vapors to eliminate any risks.

Local government controls to restrict new wells from being installed in contaminated areas until the cleanup is complete.

Contingency plans to address changes in ground-water use and/or conditions. Contingency plans include, but are not limited to, collecting samples more frequently, installing new monitoring wells, and evaluating whether additional cleanup actions are necessary.

**The actual cost could be much less and will depend on the results of additional sampling done prior to developing the final ground-water and vapor monitoring plans, as well as the results of the long-term monitoring programs.*

Why propose monitored natural attenuation?

The monitored natural attenuation option protects human health and the environment by using ongoing natural cleanup processes to return the ground water to drinking-water levels. It also uses monitoring, local government controls and contingency plans to protect human health and the environment until the ground water is returned to safe drinking-water levels.

In addition, as the levels of contaminants in the ground water decrease, the levels of site-related contaminants in the soil vapors and in area homes are also expected to decrease. Because most, if not all, of the ground-water contaminants are flowing into the Rock River, they are not likely to spread into the ground water on the other side of the river.

EPA estimates that the natural processes at the Evergreen Manor site will return the ground water to safe drinking-water levels in about 15 years. This is about twice as long as it would take with the ground-water pump and treat alternative. However, since homes with contaminated wells have been connected to the public water supply and the wells at those homes were permanently sealed, EPA believes that the monitored natural attenuation alternative would be just as protective as the ground-water pump and treat alternative and that a cleanup time of 15 years would be reasonable.

The monitored natural attenuation option is the most cost-effective option that meets the evaluation criteria as well as the cleanup goals.

See page 4 for a table comparing all of the options against EPA's evaluation criteria.

Cleanup goals

EPA's cleanup goals for the Evergreen Manor site are to:

- return the ground water to safe drinking-water standards for TCE and PCE, and any other site-related contaminants found at levels worse than drinking-water standards during the cleanup, within a reasonable time frame
- minimize the spread of ground-water contaminants
- ensure that hazardous levels of site-related vapors are not getting into homes
- prevent people from using the contaminated ground water
- ensure that the contaminated ground water is not impacting the surface water and sediment as it flows into the Rock River

Summary of other cleanup options considered

Option 1 - No-Action

Estimated Cost: $0
Estimated Time to Construct: 0 years
Estimated Cleanup Time: 15 years

The no-action option does not involve any cleanup action for the remaining ground-water contamination. Chloroform, TCE and PCE are still expected to naturally decrease and improve ground-water quality over time. However, unlike the monitored natural attenuation alternative, the no-action option does not include monitoring, local government controls to limit or restrict new wells from being installed in contaminated areas, or contingency planning. EPA is required by law to evaluate a no-action alternative to give a basis for comparison.

Option 2 - Ground-Water Pump and Treat

Estimated Cost: $25 million
Estimated Time to Construct: 6 - 12 months
Estimated Cleanup Time: 8 years

The ground-water pump and treat option involves installing ground-water extraction wells to contain and capture the remaining ground-water contaminants and treat them with an air stripper. An air stripper works by forcing a stream of air into the contaminants causing them to evaporate. TCE and PCE evaporate readily when exposed to air.

The treated ground water would be discharged to the Rock River and Dry Creek.

This option also includes ground-water monitoring, vapor monitoring, local government controls and contingency plans. (See EPA's proposed cleanup plan on page 3.)

Evaluating the cleanup options

The table below summarizes EPA's evaluation of the cleanup options against its nine evaluation criteria. (See page 7 for an explanation of the evaluation criteria.) A more detailed analysis can be found in the feasibility study report.

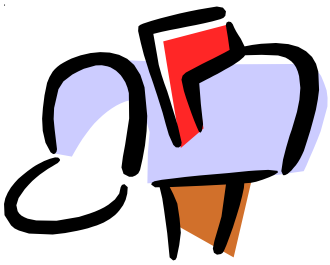
Evaluation Criteria	Alternative 1 No Action	Alternative 2 Ground-Water Pump & Treat	Alternative 3 Monitored Natural Attenuation
Overall Protection of Human Health and the Environment	❍	●	●
Compliance with Federal, State and Local Laws and Regulations	❍	●	●
Long-Term Effectiveness and Permanence	❍	●	●
Reduction of Toxicity, Mobility or Volume through Treatment	❍	●	●
Short-Term Effectiveness	❍	●	●
Implementability	❍	●	●
Cost	$0	$25 million	$8.5 million
State Acceptance	Will be evaluated after the public comment period		
Community Acceptance	Will be evaluated after the public comment period		

● Meets Criteria ❍ Does Not Meet Criteria

Use This Space to Write Your Comments

Your input on the recommended cleanup option for the remaining ground-water contamination at the Evergreen Manor site is important to EPA. Comments provided by the public are valuable in helping EPA select a final cleanup plan for the site.

You may use the space below to write your comments. You may hand this in at the August 19, 2003 public meeting or availability session, or detach, fold and mail to Janet Pope. (See back page for Janet's address.) Comments must be postmarked no later than August 26, 2003. If you have any questions, please contact Janet Pope at (312) 353-0628, or toll free at 1-800-621-8431, Ext. 30628. Comments may also be faxed to Janet at (312) 353-1155 or sent via e-mail to: pope.janet@epa.gov



Name_____

Affiliation_____

Address_____

City_____State_____

Zip_____

Evergreen Manor Site Comment Sheet

Detach, fold, stamp, and mail

Name_____
Address_____
City_____State_____
Zip_____

Place
Stamp
Here

Janet Pope
Community Involvement Coordinator
Office of Public Affairs (P-19J)
EPA Region 5
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Explanation of the nine evaluation criteria

EPA uses the following nine criteria to evaluate the cleanup alternatives. A table comparing the alternatives against these criteria is provided on page 4.

1. Overall Protection of Human Health and the Environment. Evaluates whether a cleanup option provides adequate protection and evaluates how risks are eliminated, reduced or controlled through treatment, engineering controls or local government controls.

2. Compliance with Applicable or Relevant and Appropriate Requirements. Evaluates whether a cleanup option meets federal and state environmental laws, regulations and other requirements or justifies any waivers.

3. Long-Term Effectiveness and Permanence. Considers any remaining risks after a cleanup is complete and the ability of a cleanup option to maintain reliable protection of human health and the environment over time once cleanup goals are met.

4. Reduction of Toxicity, Mobility, or Volume Through Treatment. Evaluates a cleanup option's use of treatment to reduce the harmful effects of the contaminants, their ability to move in the environment and the amount of contamination present.

5. Short-Term Effectiveness. Considers the time needed to clean up a site and the risks a cleanup option may pose to workers, the community and the environment until the cleanup goals are met.

6. Implementability. Is the technical and administrative feasibility of implementing a cleanup option and includes factors such as the relative availability of goods and services.

7. Cost. Includes estimated capital and annual operations and maintenance costs as well as the present worth cost. Present worth cost is the total cost of an alternative over time in terms of today's dollar value.

8. State Acceptance. Considers whether the state (in this case Illinois EPA) agrees with EPA's analyses and recommendations as described in the remedial investigation and feasibility study reports and EPA's proposed cleanup plan.

9. Community Acceptance. Considers whether the local community agrees with EPA's analyses and proposed cleanup plan. The comments that EPA receives on its proposal are an important indicator of community acceptance.

The next step

EPA, in consultation with Illinois Environmental Protection Agency, will evaluate public comments received during the public comment period before deciding the final cleanup plan for the site. Based on new information or public comments, EPA may modify its proposed option or select another cleanup option presented in this plan or the feasibility study report. EPA encourages you to review and comment on all the cleanup options for the ground-water contamination. EPA will respond to the comments in a document called a responsiveness summary. The responsiveness summary will be a part of the final decision document called the record of decision that describes the final cleanup plan selected for the site. EPA will announce the final cleanup plan in the local newspaper and will send a copy of the record of decision to the information repository for the site where it will be available for public review. (See the back page of this fact sheet for the location of the information repository.)

After a final plan is chosen, the plan will be designed and implemented.

About the Evergreen Manor site

In the early 1990s, ground-water contamination was traced to an industrial area near Route 251 and Rockton Road; however, the exact source(s) of contamination have not been determined. The contamination was discovered when a mortgage lender required a homeowner to test their well. Additional sampling was conducted to determine the extent of the contamination.

Sampling at three companies in the area, Regal Beloit, Ecolab and Waste Management, detected low levels of contamination. These companies agreed to pay for EPA's cost to connect 281 homes to public water supply in 1999-2000. The low levels of contaminants found at the companies and the significant decreases in the site contamination indicate that there are no more active sources of ground-water contamination.

EPA's additional investigation from 2000 to 2003 focused on the following three areas:

- ground water
- water and sediment in nearby Dry Creek and the Rock River
- indoor air and soil vapor around homes above the ground-water contamination

For more information

For more information about the public comment period, public meeting, proposed cleanup plan, or any other aspects of the Evergreen Manor project, please contact:

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Office of Public Affairs (P-19J)
EPA Region 5
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EPA Web site

This fact sheet, previous fact sheets and other site documents can be found on the following EPA Web site:

www.epa.gov/region5/sites

Click on Illinois and scroll through the list to find Evergreen Manor.

Information repository

An information repository is a file for public review containing documents related to the project and the Superfund program. The Evergreen Manor information repository is located in the reference section of the:

Roscoe Branch Library
5562 Clayton Circle
Roscoe, Ill.

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